

CLAIMS

We claim:

1. A process for modifying the properties of a particulate dietary fiber material comprising dispersing said particulate material in a liquid media, applying an abrupt pressure change to said particulate material in said liquid media, and recovering said modified fiber material.
2. The process of claim 1 wherein said abrupt pressure change is from about 0.8 to about 1.2 atm to greater than 13,000 psi to about 100,000 psi in about 0.1 to 0.2 sec.
3. The process of claim 1 further comprising drying said modified fiber.
4. The process of claim 3 further comprising subjecting said recovered fiber to mechanical action sufficient to reduce particulate agglomeration.
5. The process of claim 1 wherein said liquid media contains about 10 to about 25 percent by weight of said fiber material.
6. The process of claim 1 wherein said liquid media is subjected to said abrupt pressure change at a temperature of about 25 degrees centigrade.
7. The process of claim 3 wherein said modified fiber is dried at a temperature greater than 25 degrees centigrade.
8. The process of claim 7 wherein said modified fiber is dried at a temperature of about 70 degrees centigrade.
9. The process of claim 3 wherein said modified fiber is recovered by allowing suspended particles to settle and decanting the liquid media.
10. A process to reduce the water holding capacity and oil retention properties of dietary fibers selected from the group including dietary cellulose and wheat fibers, comprising preparing a suspension of said fibers in a liquid media, applying an abrupt pressure change greater than 13,000 psi to about 100,000 psi to said suspension and recovering a modified fiber having

said reduced properties.

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11. A process to increase the water holding capacity and oil retention properties of dietary fibers selected from the group including dietary soy, wheat bran, oat and oat hull fibers, comprising preparing a suspension of said fibers in a liquid media, applying an abrupt pressure change greater than 13,000 psi to about 100,000 psi to said suspension and recovering a modified fiber having said increased properties.
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12. A process to prepare a dietary fiber material having water absorption properties that are resistant to change due to temperature increases comprising preparing a suspension of said fibers in a liquid media, applying an abrupt pressure change greater than 13,000 psi to about 100,000 psi to said suspension and recovering a modified fiber having said resistant properties.
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13. A process to increase the total dietary fiber content of a dietary fiber material comprising preparing a suspension of said fibers in a liquid media, applying an abrupt pressure change greater than 13,000 psi to about 100,000 psi to said suspension and recovering a modified fiber having said resistant properties.
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14. The process according to claim 1 wherein said particulate dietary fiber material is derived from the group consisting of apple fiber, bran fiber, fig powder, barley bran flour, barley four, high protein, barley fiber brewer's spent grains, oat bran, oat fiber barley, rice, malted germ, pea fiber, bleached corn fiber, powdered cellulose, carrageen gum cellulose gum, prunes, citrus fiber, rice bran, de-fatted cocoa, rice bran-stabilized, corn bran, rice fiber, corn fiber, cellulose fibers, sodium carboxymethyl cellulose, corn flour, soy fiber, corn husks, sugar beet fiber, dried cranberries, wheat bran de-fatted, wheat germ, wheat fiber, oat husks, wheat flour, peanut flour, microcrystalline cellulose, combinations of any number of the above fibers, blends of above fibers in a raw state with their pressure treated versions.

Sub D3 > ~~15. A modified dietary fiber made by the process according to any one of claims 1 to 14.~~

add D4 >

add E3 >

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